भारतीय मानक
Indian Standard

IS 8986 : 2022

षट्कोणीय एकीकृत वेधक इस्पात और विस्तारक छड़ें और सरिया के आकार में खोखले गोलाकार वेधक इस्पात — आयाम

(दूसरा पुनरीक्षण)

Hexagonal Integral Drill Steel and Extension Rods and Hollow Round Drill Steel in Bar Form — Dimensions

(Second Revision)

ICS 73.100.30; 77.140.60

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March 2022 **Price Group 2**

Diamond Core and Water Well Drilling Sectional Committee, MED 21

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Diamond Core and Water Well Drilling Sectional Committee had been approved by the Mechanical Engineering Division Council.

This standard was first published in 1978 and subsequently revised in 1994 with the title 'Percussive drilling — Drill steels in bar form — Dimensions (*first revision*)'

The major changes in this revision are as follows:

a) Change in title of the standard; and
b) Change in the scope of the standard.

In the preparation of this standard considerable assistance has been derived from the following standards published by the International Organization for Standardization (ISO):

ISO 722 : 1991 Rock drilling equipment — Hollow drill steels in bar form, hexagonal and round

ISO 1721 : 1974 Rock drilling — Extension drill-steel equipment for percussive long-hole drilling — Reverse-buttress-threaded equipments 1 1/16 and 1 1/4 in (27 and 32 mm)

ISO 1722 : 1974 Rock drilling — Extension drill-steel equipment for percussive long-hole drilling — Reverse-buttress-threaded equipments 1 1/2 to 2 1/2 in (38 to 64 mm)

ISO 10207 : 1991 Rock drilling equipment — Rope threaded drill steel equipment for percussive drilling, nominal sizes 22 mm to 38 mm

ISO 10208 : 1991 Rock drilling equipment — Left-hand rope threads

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

HEXAGONAL INTEGRAL DRILL STEEL AND EXTENSION RODS AND HOLLOW ROUND DRILL STEEL IN BAR FORM — DIMENSIONS

(Second Revision)

1 SCOPE

This standard specifies the dimensions for hexagonal integral drill steel and extension rods and hollow round drill steel in bar form.

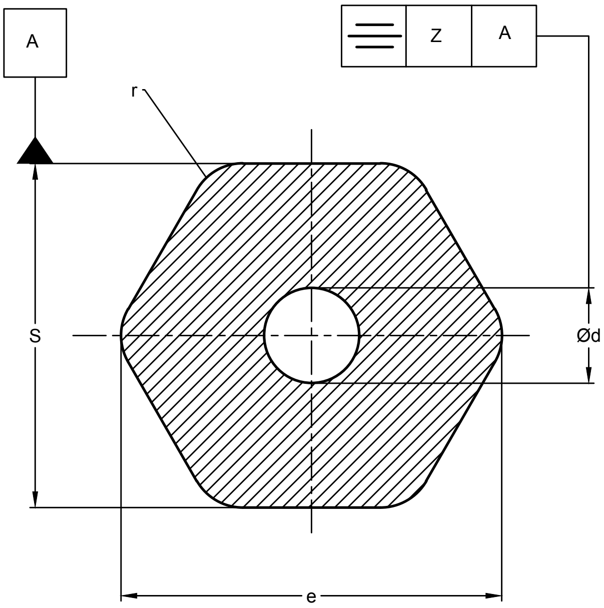
2 DIMENSIONS

2.1 Hexagonal Integral Drill Steel and Extension Rods

See Table 1.

Table 1 Dimensions for Hexagonal Integral Drill Steel and Extension Rods

(*Clause* 2.1)



All dimensions in millimetres

Sl No.	Nominal Size	*s*	Tolerance on *s*	*e*	*'d'*	*r* +1 0	Symmetry *z*	Sectional Area ≃ mm^2	Mass ≃ kg/m
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	19	19.2	+0.1 −0.4	21.4	6 ± 0.5	1.5	0.75	285	2.2
ii)	22	22.4	+0.1 −0.4	24.8	6.7 ± 0.6	2	0.75	390	3.1
iii)	22A	22.4	+0.1 −0.4	24.8	6.1 *Min*	2	0.75	390	3.1
iv	25	25.6	0 −0.6	28.5	7.6 ± 0.75	2	0.75	510	4
v)	25A	25.6	0 −0.6	28.5	8.4 *Min*	2	0.75	495	3.9
vi)	32	31.75	+0.53 −0.33	35.2	8.8 *Min*	3.18	1.20	750	6.0
vii)	38	38.10	+0.53 −0.33	42.8	13.0 *Min*	3.18	1.20	1 060	8.3

2.2 Hollow Round Drill Steel in Bar Form for Extension Rods

See Table 2.

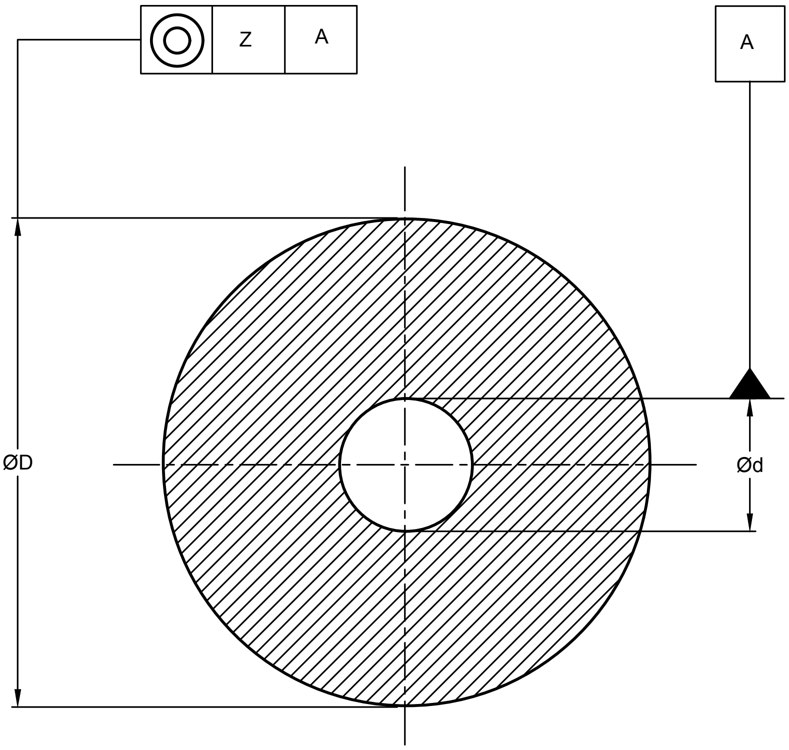
3 DESIGNATION

A hexagonal drill steel (letters H and R shall be used to designate section/hexagonal and round drill steel respectively) of 25A nominal size shall be designated as:

Drill steel 25AH IS 8986.

Table 2 Dimensions for Hollow Round Drill Steel in Bar Form for Extension Rods

(*Clause* 2.2)



All dimensions in millimetres.

Sl No.	Nominal Size	*D*	Tolerance on *D*	*d Min*	Coaxiality *z*	Sectional Area ≃ mm^2	Mass ≃ kg/m
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	32	32.4	0 −0.7	8.8	0.8	740	5.7
ii)	38	39.5	0 −1.0	13	1.0	1 090	8.5
iii)	45	45.5	0 −1.4	14.5	1.5	1 470	11.5
iv)	51	52.6	0 −1.6	16	1.5	1 920	15.0

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Diamond Core and Water Well Drilling Sectional Committee, MED 21

Organization	*Representative (s)*
Geological Survey of India, Kolkata	Shri Ajay Agarwal (***Chairman***) Shri Anup Kumar Johri (*Alternate*) Shri S. Shankar (*Young Professional*) Shri C. B. Tiwari (*Young Professional*)
Aqseptence Group (India) Pvt Ltd (Formaly Known As Johanson Screens India Pvt Ltd), Ahmedabad	Shri Rakesh Arora Shri Anil C. Shah (*Alternate*)
Atlas Copco (I) Ltd, Pune	Shri Shudhanshu Nigam Shri S. Datta Majumdar (*Alternate*)
Central Ground Water Board, Faridabad	Shri G. L. Meena Shri Nidhish Verma (*Alternate*)
Central Mine Planning and Design Institute Limited, Ranchi	Shri Anil Savanur Shri A. V. Ramakrishna (*Alternate*)
Epiroc Mining India Limited, Nashik	Shri Sujeet Kumar Shri Chandan Ghosh (*Alternate*)
Indian Institute of Technology (Indian School of Mines), Dhanbad	Dr A. K. Pathak
Indian Institute of Technology Kanpur, Kanpur	Prof J. Ramkumar Prof Sudhanshu Shekhar Singh (*Alternate*)
Indian Institute of Technology Roorkee, Roorkee	Prof B. K. Gandhi Shri Varun Kumar Sharma (*Alternate*)
Indian Pump Manufacturers Association, Mumbai	Shri Yogesh Mistry Shri Utkarsh A. Chhaya (*Alternate*)
In Personal Capacity (*90 Mayur Vihar, Sec 48, Chandigarh*)	Shri Mahesh Chandra Jindal
In Personal Capacity (*F-401, Maruti Sadan, Begumpet, Hydrabad*)	Shri A. B. Anand
Kores (India) Ltd, Mumbai	Shri Sandeep Dholi
Rail India Technical and Economic Service (RITES Ltd), Gurugram	Shri S. Kunal Shri P. C. Dewli (*Alternate*)
Rockdrill (India), Jodhpur	Shri Kamalkishor Gupta Shri Ravindra Ku. Gupta (*Alternate*)
Sandvik Smith Asia Ltd, Medak	Shri Rangayya Naidu Shri N. Bhaskara Reddy (*Alternate*)
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Member Secretary

Ms Khushbu Jyotsna Kindo
Scientist 'C' (MED), BIS

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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